

# EUROPEAN PATENT OFFICE

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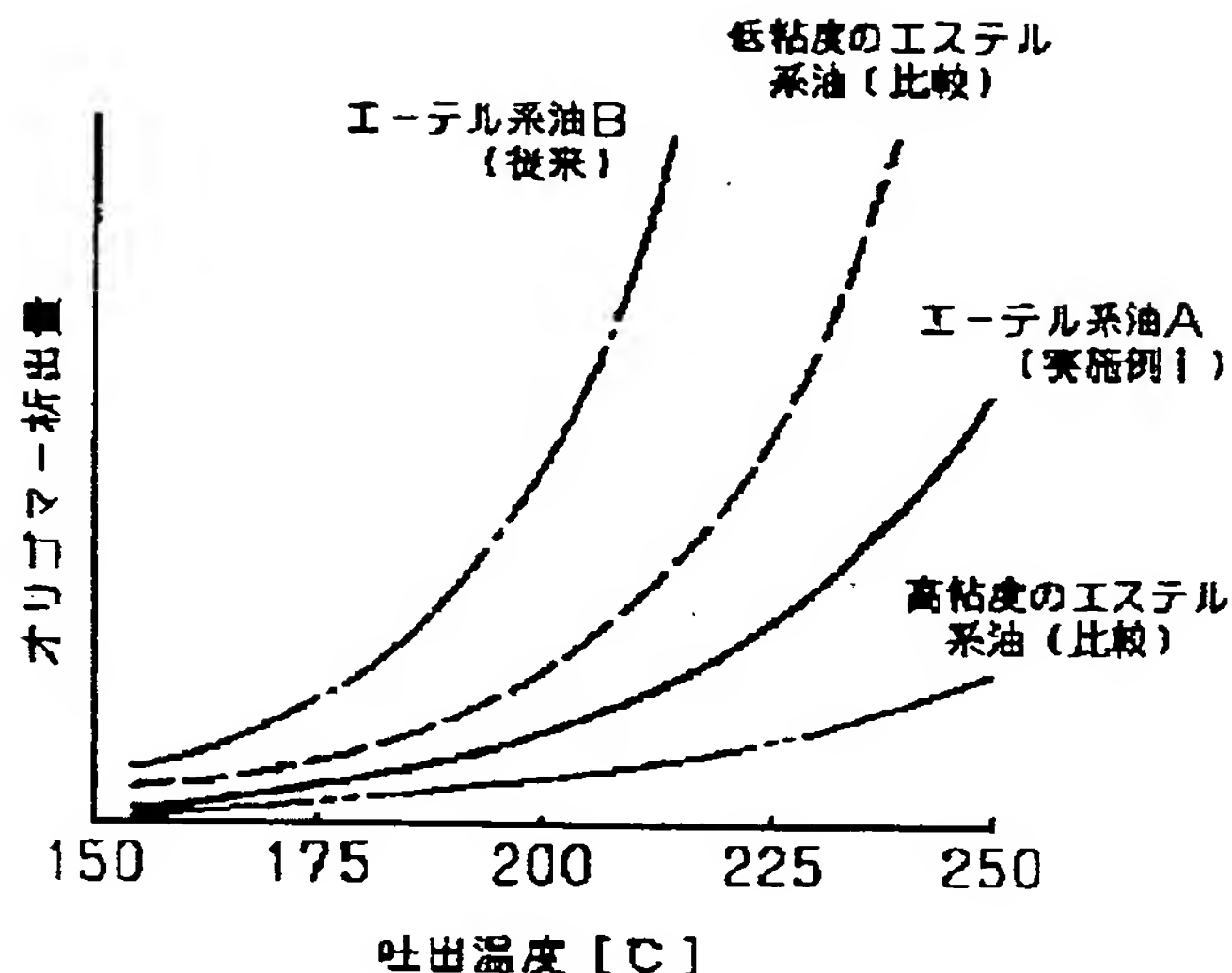
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TITLE : REFRIGERATOR OIL



**ABSTRACT :** PROBLEM TO BE SOLVED: To obtain a refrigerator oil, capable of maintaining the durability of a compressor without depositing an oligomer or a carboxylic acid metallic salt, etc., dissolved in a refrigerator oil ever when a nonester-based low-viscosity refrigerator oil is applied to a reciprocating hermetically closed type electric compressor in order to raise the efficiency and prevent hydrolysis.

**SOLUTION:** A refrigerator oil, consisting essentially of a nonester-based synthetic oil having  $\leq 20 \text{ mm}^2/\text{sec}$  kinematic viscosity at  $40^\circ\text{C}$  and containing  $\geq 20 \text{ wt.}\%$  component having  $1400^\circ\text{C}$  boiling point compounded therewith can be used to thereby maintain the durability of a compressor without depositing an oligomer or a carboxylic acid metallic salt, etc., near a discharging chamber or a discharging valve due to no complete evaporation of the component having  $\geq 400^\circ\text{C}$  boiling point in the refrigerator oil in the discharging chamber and due to the discharge together with the refrigerant while dissolving the oligomer or carboxylic acid metallic salt therein. A carbonate-based synthetic oil or an ether-based synthetic oil is preferred as the nonester-based synthetic oil.

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